

REMARKS

The amendment of claim 1 serves to clarify the invention and is not in response to the rejection of claim 1.

The Examiner objected to claim 20. In response, Applicants have amended claim 20 to clarify the invention in accordance with the Examiner's suggestions.

The Examiner rejected claims 1-5, 7-13, 15, and 17-18 under 35 U.S.C. §102(e) as allegedly being anticipated by Movshovich et al. (US 6,434,170).

The Examiner rejected claims 6, 14, 16, and 19-20 under 35 U.S.C. §103(a) as allegedly being unpatentable over Movshovich et al. (US 6,434,170) in further view of Temple et al. (US 2003/0147430).

Applicants respectfully traverse the §102(e) and §103(a) rejections with the following arguments.

35 U.S.C. §102(e)

The Examiner rejected claims 1-5, 7-13, 15, and 17-18 under 35 U.S.C. §102(e) as allegedly being anticipated by Movshovich et al. (US 6,434,170).

Claims 1-5 and 7-10

Applicants respectfully contend that Movshovich does not anticipate claim 1, because Movshovich does not teach each and every feature of claim 1.

For example, Movshovich does not teach the feature: "the string comparator comparing transport stream data from the data unloader to at least a portion of a compare value filter and storing a destination address of the transport stream data when the compared transport stream data matches the at least a portion of the compare value filter".

As a first example why Movshovich does not teach each and every feature of claim 1, Movshovich does not teach the feature: "the string comparator **comparing** transport stream data from the data unloader to at least a portion of a compare value filter" (emphasis added).

The Examiner alleges that the following quote from Movshovich, col. 9, lines 48-63 teaches the preceding feature of claim 1: "...the counter value on path 384 represents an address index which can be used to address particular memory queues corresponding to information identified by its PID. The address index can be used by a processing unit to generate a physical memory address where the particular transport packet will ultimately be stored prior to transmission to decoding units. The use of the address index in the local header allows a destination location to be designated without the need to develop the complete address until it is

necessary to actually write the transport packet to its corresponding memory queue"

(Movshovich 9:48-63)."

In response, Applicants contend that Movshovich, col. 9, lines 48-63 does not teach the "comparing" operation required by the preceding feature of claim 1. In fact, Movshovich, col. 9, lines 48-63 is totally unrelated to the preceding feature of claim 1.

As a second example why Movshovich does not teach each and every feature of claim 1, Movshovich does not teach the feature: "the string comparator ... storing a destination address of the transport stream data **when** the compared transport stream data matches the at least a portion of the compare value filter" (emphasis added).

The Examiner alleges that the following quote from Movshovich, col. 9, lines 48-63 teaches the preceding feature of claim 1: "...the counter value on path 384 represents an address index which can be used to address particular memory queues corresponding to information identified by its PID. The address index can be used by a processing unit to generate a physical memory address where the particular transport packet will ultimately be stored prior to transmission to decoding units. The use of the address index in the local header allows a destination location to be designated without the need to develop the complete address until it is necessary to actually write the transport packet to its corresponding memory queue" (Movshovich 9:48-63)."

Applicants contend that Movshovich, col. 9, lines 48-63 discloses use of an address index, whereas the preceding feature of claim 1 requires storage of a destination address. Indeed, the preceding quote in Movshovich, col. 9, lines 48-63 makes it clear that is an address index,

rather than address, which is to be used ("The use of the address index in the local header allows a destination location to be designated **without the need to develop the complete address** until it is necessary to actually write the transport packet to its corresponding memory queue" (emphasis added)).

Furthermore, while the preceding quote in Movshovich, col. 9, lines 48-63 states that the address index can be used to generate an address, Movshovich, col. 9, lines 48-63 does not teach **storing** said address as required by the preceding feature of claim 1. The address appears to be generated and used on the fly. Indeed, Movshovich would have no need to store said address, since after the transport packet is written to its corresponding memory queue, the address is not longer needed and therefore need not be stored. In any event, Movshovich most certainly does not disclose storing the address.

Also, the preceding quote in Movshovich, col. 9, lines 48-63 does not teach storing said address **conditionally**; i.e., "when the compared transport stream data matches the at least a portion of the compare value filter" as required by the preceding feature of claim 1.

Based on the preceding arguments, Applicants respectfully maintain that Movshovich does not anticipate claim 1, and that claim 1 is in condition for allowance. Since claims 2-5 and 7-10 depend from claim 1, Applicants contend that claims 2-5 and 7-10 are likewise in condition for allowance.

Claims 11-13, 15, and 17-18

Applicants respectfully contend that Movshovich does not anticipate claim 11, because

Movshovich does not teach each and every feature of claim 11.

As a first example why Movshovich does not teach each and every feature of claim 11, Movshovich does not teach the feature: "i) a compare register, the compare register storing at least one compare value filter; ii) a masking register, the masking register designating at least a portion of the compare value filter" (emphasis added).

In analyzing "a compare register, the compare register storing at least one compare value filter", the Examiner alleges that PID table of 32 PID entries stored in RAM (as disclosed in Movshovich, col. 7, lines 58-61) represents the "at least one compare value filter" of claim 11. Therefore, in order for the Examiner's argument to be logically consistent, Movshovich must teach a masking register that designates at least a portion of the PID table of 32 PID entries stored in RAM, which Movshovich does not teach.

In particular, the Examiner alleges that Movshovich, col. 8, line 64 - col. 9, line 24 teaches the masking register of claim 11 as being represented by PID mask register 362 for obtaining only the relevant bits for the comparison. In response, Applicants contend that Movshovich, col. 8, line 64 - col. 9, line 24 does not teach that PID mask register 362 designates at least a portion of the PID table of 32 PID entries stored in RAM, as required in order for the Examiner's argument to be logically consistent.

As a second example why Movshovich does not teach each and every feature of claim 11, Movshovich does not teach the feature: "wherein the string comparator compares the other transport stream data from the data unloader to the designated at least a portion of the compare

value filter" (emphasis added).

The Examiner alleges that the following quote from Movshovich, col. 9, lines 48-63 teaches the preceding feature of claim 11: "...the counter value on path 384 represents an address index which can be used to address particular memory queues corresponding to information identified by its PID. The address index can be used by a processing unit to generate a physical memory address where the particular transport packet will ultimately be stored prior to transmission to decoding units. The use of the address index in the local header allows a destination location to be designated without the need to develop the complete address until it is necessary to actually write the transport packet to its corresponding memory queue" (Movshovich 9:48-63)."

In response, Applicants contend that Movshovich, col. 9, lines 48-63 does not teach the "comparing" operation required by the preceding feature of claim 11. In fact, Movshovich, col. 9, lines 48-63 is totally unrelated to the preceding feature of claim 11.

Moreover, the Examiner has alleged that PID table of 32 PID entries stored in RAM represents the "at least one compare value filter" of claim 11, as discussed *supra*. Therefore, in order for the Examiner's argument to be logically consistent, Movshovich must teach that the string comparator compares the other transport stream data from the data unloader to the designated at least a portion of the PID table of 32 PID entries stored in RAM, which Movshovich does not teach.

As a third example why Movshovich does not teach each and every feature of claim 11, Movshovich does not teach the feature: "wherein the string comparator ... stores a destination

address of the other transport stream data at the address register **when** the compared other transport stream data matches the designated at least a portion of the compare value filter" (emphasis added).

The Examiner alleges that the following quote from Movshovich, col. 9, lines 48-63 teaches the preceding feature of claim 11: "...the counter value on path 384 represents an address index which can be used to address particular memory queues corresponding to information identified by its PID. The address index can be used by a processing unit to generate a physical memory address where the particular transport packet will ultimately be stored prior to transmission to decoding units. The use of the address index in the local header allows a destination location to be designated without the need to develop the complete address until it is necessary to actually write the transport packet to its corresponding memory queue" (Movshovich 9:48-63)."

Applicants contend that Movshovich, col. 9, lines 48-63 discloses use of an address index, whereas the preceding feature of claim 11 requires storage of a destination address. Indeed, the preceding quote in Movshovich, col. 9, lines 48-63 makes it clear that is an address index, rather than address, which is to be used ("The use of the address index in the local header allows a destination location to be designated **without the need to develop the complete address** until it is necessary to actually write the transport packet to its corresponding memory queue" (emphasis added)).

Furthermore, while the preceding quote in Movshovich, col. 9, lines 48-63 states that the address index can be used to generate an address, Movshovich, col. 9, lines 48-63 does not teach **storing** said address as required by the preceding feature of claim 11. The address appears to be

generated and used on the fly. Indeed, Movshovich would have no need to store said address, since after the transport packet is written to its corresponding memory queue, the address is no longer needed and therefore need not be stored. In any event, Movshovich most certainly does not disclose storing the address.

Also, the preceding quote in Movshovich, col. 9, lines 48-63 does not teach storing said address **conditionally**; i.e., "when the compared transport stream data matches the at least a portion of the compare value filter" as required by the preceding feature of claim 11.

In addition, the Examiner has alleged that PID table of 32 PID entries stored in RAM represents the "at least one compare value filter" of claim 11, as discussed *supra*. Therefore, in order for the Examiner's argument to be logically consistent, Movshovich must teach that the string comparator stores a destination address of the other transport stream data at the address register when the compared other transport stream data matches the designated at least a portion of the PID table of 32 PID entries stored in RAM, which Movshovich does not teach.

As a fourth example why Movshovich does not teach each and every feature of claim 11, Movshovich does not teach the feature: "a packet buffer".

The Examiner alleges that the following quote from Movshovich, col. 6, lines 45-65 **inherently** teaches the packet buffer of claim 11: "[g]enerally, the packet framer 302 performs packet framing and byte alignment, as well as synchronization detection. The packet framer 302 continuously searches for the MPEG synchronization byte in the header of the incoming transport data stream... The framer 302 forwards the data to the PID match unit 304". The Examiner argues that "it is **inherent** that the packet framer temporarily store incoming data for successful

detection of synchronization and forwarding of data to PID match unit" (emphasis added)

In response, Applicants respectfully traverse the preceding inherency argument of the Examiner. In order for a fact to be inherently disclosed by a reference, the fact must necessarily and inevitably follow from what is actually disclosed in the reference.

Therefore, in order for Movshovich to inherently disclose a packet buffer in the demultiplexor based on the Examiner's argument relating to the framer 302, the Examiner must demonstrate that it is necessary and inevitable to have a packet buffer in the demultiplexor in order to accomplish "successful detection of synchronization and forwarding of data to PID match unit". Applicants contend that it is not necessary and inevitable to temporarily store the packet data in a buffer that exists within the demultiplexor in order for the framer 302 to perform its functionality. For example, it is possible to temporarily store the packet data in a buffer that exists outside of the demultiplexor and is yet accessible to the framer 302. As another example, the framer 302 could read the packet, parse the packet, analyze the parsed packet to perform the framer 302 functionality, reconstruct the packet from the parsed packet, wherein all further processing could be on the reconstructed packet rather than the original packet.

As an illustration from the prior art as to why the alleged inherency does not exist, see Temple (US 2003/0147430) [0042]: "Although the demultiplexer is described above as storing the received data before determining the addresses of the appropriate MPEG-TS data, the data may simply be examined on-the-fly, in other words in real time, and the desired data fed to the output and the other data directed to decoders in the demultiplexer or discarded accordingly".

Accordingly, Applicants assert that Movshovich does not inherently teach a packet buffer.

Based on the preceding arguments, Applicants respectfully maintain that Movshovich does not anticipate claim 11, and that claim 11 is in condition for allowance. Since claims 12-13, 15 and 17-18 depend from claim 11, Applicants contend that claims 12-13, 15 and 17-18 are likewise in condition for allowance.

35 U.S.C. §103(a)

The Examiner rejected claims 6, 14, 16, and 19-20 under 35 U.S.C. §103(a) as allegedly being unpatentable over Movshovich et al. (US 6,434,170) in further view of Temple et al. (US 2003/0147430).

Claims 6

Since claim 6 depends from claim 1, which Applicants have argued *supra* to not be unpatentable over Movshovich under 35 U.S.C. §102(2), Applicants maintain that claim 1 is likewise not unpatentable over Movshovich in view of Temple under 35 U.S.C. §103(a).

Claims 14, 16, and 19

Since claims 14, 16, and 19 depend from claim 11, which Applicants have argued *supra* to not be unpatentable over Jones under 35 U.S.C. §102(2), Applicants maintain that claims 14, 16, and 19 are likewise not unpatentable over Movshovich in view of Temple under 35 U.S.C. §103(a).

Claim 20

Applicants respectfully contend that claim 20 is not unpatentable over Movshovich in view of Temple, because Movshovich in view of Temple does not teach or suggest each and every feature of claim 20.

As a first example why Movshovich in view of Temple does not teach or suggest each and every feature of claim 20, Movshovich in view of Temple does not teach or suggest the

feature: "(I) a compare register, the compare register storing at least one compare value filter;
ii) a masking register, the masking register designating at least a portion of the compare value filter" (emphasis added).

In analyzing "a compare register, the compare register storing at least one compare value filter", the Examiner alleges that PID table of 32 PID entries stored in RAM (as disclosed in Movshovich, col. 7, lines 58-61) represents the "at least one compare value filter" of claim 20. Therefore, in order for the Examiner's argument to be logically consistent, Movshovich must teach or suggest a masking register that designates at least a portion of the PID table of 32 PID entries stored in RAM, which Movshovich does not teach or suggest.

In particular, the Examiner alleges that Movshovich, col. 8, line 64 - col. 9, line 24 teaches the masking register of claim 20 as being represented by PID mask register 362 for obtaining only the relevant bits for the comparison. In response, Applicants contend that Movshovich, col. 8, line 64 - col. 9, line 24 does not teach or suggest that PID mask register 362 designates at least a portion of the PID table of 32 PID entries stored in RAM, as required in order for the Examiner's argument to be logically consistent.

As a second example why Movshovich in view of Temple does not teach or suggest each and every feature of claim 20, Movshovich in view of Temple does not teach or suggest the feature: "wherein the string comparator **compares** system memory data from the data unloader to the designated at least a portion of the compare value filter " (emphasis added).

The Examiner alleges that the following quote from Movshovich, col. 9, lines 48-63 teaches the preceding feature of claim 20: "...the counter value on path 384 represents an address

index which can be used to address particular memory queues corresponding to information identified by its PID. The address index can be used by a processing unit to generate a physical memory address where the particular transport packet will ultimately be stored prior to transmission to decoding units. The use of the address index in the local header allows a destination location to be designated without the need to develop the complete address until it is necessary to actually write the transport packet to its corresponding memory queue" (Movshovich 9:48-63)."

In response, Applicants contend that Movshovich, col. 9, lines 48-63 does not teach or suggest the "comparing" operation required by the preceding feature of claim 20. In fact, Movshovich, col. 9, lines 48-63 is totally unrelated to the preceding feature of claim 20.

Moreover, the Examiner has alleged that PID table of 32 PID entries stored in RAM represents the "at least one compare value filter" of claim 20, as discussed *supra*. Therefore, in order for the Examiner's argument to be logically consistent, Movshovich must teach or suggest that the string comparator compares the system memory data from the data unloader to the designated at least a portion of the PID table of 32 PID entries stored in RAM, which Movshovich does not teach or suggest.

As a third example why Movshovich in view of Temple does not teach or suggest each and every feature of claim 20, Movshovich in view of Temple does not teach or suggest the feature: "wherein the string comparator ... stores a destination address of the system memory data at the address register when the compared system memory data matches the designated at least a portion of the compare value filter" (emphasis added).

The Examiner alleges that the following quote from Movshovich, col. 9, lines 48-63 teaches the preceding feature of claim 20: "...the counter value on path 384 represents an address index which can be used to address particular memory queues corresponding to information identified by its PJD. The address index can be used by a processing unit to generate a physical memory address where the particular transport packet will ultimately be stored prior to transmission to decoding units. The use of the address index in the local header allows a destination location to be designated without the need to develop the complete address until it is necessary to actually write the transport packet to its corresponding memory queue" (Movshovich 9:48-63)."

Applicants contend that Movshovich, col. 9, lines 48-63 discloses use of an address index, whereas the preceding feature of claim 20 requires storage of a destination address. Indeed, the preceding quote in Movshovich, col. 9, lines 48-63 makes it clear that is an address index, rather than address, which is to be used ("The use of the address index in the local header allows a destination location to be designated **without the need to develop the complete address** until it is necessary to actually write the transport packet to its corresponding memory queue" (emphasis added)).

Furthermore, while the preceding quote in Movshovich, col. 9, lines 48-63 states that the address index can be used to generate an address, Movshovich, col. 9, lines 48-63 does not teach or suggest **storing** said address as required by the preceding feature of claim 20. The address appears to be generated and used on the fly. Indeed, Movshovich would have no need to store said address, since after the transport packet is written to its corresponding memory queue, the address is not longer needed and therefore need not be stored. In any event, Movshovich most

certainly does not disclose storing the address.

Also, the preceding quote in Movshovich, col. 9, lines 48-63 does not teach or suggest storing said address conditionally; i.e., "when the compared system memory data matches the at least a portion of the compare value filter" as required by the preceding feature of claim 20.

In addition, the Examiner has alleged that PID table of 32 PID entries stored in RAM represents the "at least one compare value filter" of claim 20, as discussed *supra*. Therefore, in order for the Examiner's argument to be logically consistent, Movshovich must teach or suggest that the string comparator stores a destination address of the system memory data at the address register when the compared system memory data matches the designated at least a portion of the PID table of 32 PID entries stored in RAM, which Movshovich does not teach or suggest.

As a fourth example why Movshovich does not teach each and every feature of claim 11, Movshovich in view of Temple does not teach or suggest the feature: "a packet buffer".

The Examiner alleges that the following quote from Movshovich, col. 6, lines 45-65 inherently teaches the packet buffer of claim 11: "[g]enerally, the packet framer 302 performs packet framing and byte alignment, as well as synchronization detection. The packet framer 302 continuously searches for the MPEG synchronization byte in the header of the incoming transport data stream... The framer 302 forwards the data to the PID match unit 304". The Examiner argues that "it is inherent that the packet framer temporarily store incoming data for successful detection of synchronization and forwarding of data to PID match unit" (emphasis added).

In response, Applicants respectfully traverse the preceding inherency argument of the Examiner. In order for a fact to be inherently disclosed by a reference, the fact must necessarily

and inevitably follow from what is actually disclosed in the reference.

Therefore, in order for Movshovich to inherently disclose a packet buffer in the demultiplexor based on the Examiner's argument relating to the framer 302, the Examiner must demonstrate that it is necessary and inevitable to have a packet buffer in the demultiplexor in order to accomplish "successful detection of synchronization and forwarding of data to PID match unit". Applicants contend that it is not necessary and inevitable to temporarily store the packet data in a buffer that exists within the demultiplexor in order for the framer 302 to perform its functionality. For example, it is possible to temporarily store the packet data in a buffer that exists outside of the demultiplexor and is yet accessible to the framer 302. As another example, the framer 302 could read the packet, parse the packet, analyze the parsed packet to perform the framer 302 functionality, reconstruct the packet from the parsed packet, wherein all further processing could be on the reconstructed packet rather than the original packet.

As an illustration from the prior art as to why the alleged inherency does not exist, see Temple (US 2003/0147430) [0042]: "Although the demultiplexer is described above as storing the received data before determining the addresses of the appropriate MPEG-TS data, the data may simply be examined on-the-fly, in other words in real time, and the desired data fed to the output and the other data directed to decoders in the demultiplexer or discarded accordingly".

Accordingly, Applicants assert that Movshovich does not inherently teach a packet buffer.

Moreover, even if Movshovich does inherently teach a packet buffer (which Movshovich doesn't), inherency cannot be used to reject a claim under 35 U.S.C. § 103(a). See *In re Shetty*, 566 F.2d 81, 86, 195 U.S.P.Q. 753, 756-57 (C.C.P.A. 1977) (reversing the Board's rejection of a claim based on alleged inherency under 35 U.S.C. 103 of a method to curb appetite,

and stating: "[t]he inherency of an advantage and its obviousness are entirely different questions. That which may be inherent is not necessarily known. Obviousness cannot be predicated on what is unknown").

As a fifth example why Movshovich in view of Temple does not teach or suggest each and every feature of claim 20, Movshovich in view of Temple does not teach or suggest the feature: "the front end logic selectively receiving the MPEG-2 transport stream and the alternative transport stream".

The Examiner argues: "However, the Movshovich et al. reference is silent as to processing non-mpeg streams. Now note the Temple et al. reference that discloses a demultiplexor for receiving MPEG type signals and ATM type signals (Temple [0009]). The claimed a bypassable packet parser and bypassable synchronizer is met by "where the signal received by a set top box is a narrowcast signal, the MPEG-2 TS demultiplexor receives from the ATM termination and data extraction unit, an MPEG-2 transport stream which contains data corresponding to the required video, audio etc signal only...the MPEG-2 TS demultiplexor does little more than simply pass the data from its input to its output" (Temple [0034]). Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Movshovich MPEG-2 transport demultiplexor with packet framer and synchronizer with the Temple et al. bypass of demultiplexing system when receiving ATM type signals for the purpose of allowing a user to receive broadcast and narrow cast signals so that users may have more control over the data being transmitted (Temple [0024-0025]).".

In response, Applicants respectively contend that the Examiner's modification of

Movshovich by the alleged teaching of Temple is not persuasive, because Temple teaches away from using the MPEG-2 TS demultiplexor as suggested by the Examiner. Temple [0034] and [0035] explains that such usage of the MPEG-2 TS demultiplexor is highly inefficient.

Instead, Temple [0036] - [0041] describes a more complex demultiplexor having an added ATM recovery section and a AAL PDU SAR unit for recovering ATM PDU data.

In addition, Temple [0027] teaches that a multiplexor capable of receiving both broadcast and narrowcast signals is directed to processing only a very specific format of both broadcast and narrowcast data, namely a format which meets the ISO standard of the MPEG-2 TS.

Additionally, Temple [0029] explains that "in order to transmit the ATM cells over the network without having overly complicated hardware, the ATM cells are further coded using the same format as the MPEG transport stream to provide a pseudo MPEG transport stream. This pseudo MPEG transport stream may be transmitted over the network along with the broadcast MPEG-TS".

Based on Temple's disclosure, Applicants maintain that a modification of Movshovich by the preceding teaching of Temple would be too complex and require the signal data to be formatted too specifically to be obvious. Indeed, an individual desirous of receiving both broadcast and narrowcast signals would find it obvious to use Temple's demultiplexer directly rather than to use Movshovich's demultiplexer modified by Temple's disclosure.

Based on the preceding arguments, Applicants respectfully maintain that claim 20 is not unpatentable over Movshovich in further view of Temple, and that claim 20 is in condition for allowance.

CONCLUSION

Based on the preceding arguments, Applicants respectfully believe that all pending claims and the entire application meet the acceptance criteria for allowance and therefore request favorable action. If the Examiner believes that anything further would be helpful to place the application in better condition for allowance, Applicants invites the Examiner to contact Applicants' representative at the telephone number listed below. The Director is hereby authorized to charge and/or credit Deposit Account No. 09-0457.

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